

Attorney Docket No.: J6886(C)  
Serial No.: 10/828,906  
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Confirmation No.: 5655

**BRIEF FOR APPELLANT**

This is a Brief on appellant's Appeal from the Examiner's Final Rejection concerning the above-identified application.

The Commissioner is hereby authorized to charge any additional fees, which may be required to our deposit account No. 12-1155, including all required fees under: 37 C.F.R. §1.16; 37 C.F.R. §1.17; 37 C.F.R. §1.18.; 37 C.F.R. §1.136.

**BRIEF FOR APPELLANT**

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### **I. REAL PARTY IN INTEREST**

Unilever Home & Personal Care USA, Division of Conopco, Inc. is the real party in interest.

### **II. RELATED APPEALS AND INTERFERENCES**

There are no other prior or pending appeals or interferences or judicial proceedings known to appellant, the appellant's legal representative, or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending Appeal.

### **III. STATUS OF CLAIMS**

Claims 1-2, 4-6 and 10-12 are on Appeal. Original claims 7 and 8 have been canceled. Claims 3 and 9 have been withdrawn subject to a Restriction Requirement.

### **IV. STATUS OF AMENDMENTS**

No amendments were submitted subsequent to the Final Office Action. Thus, claims 1-2, 4-6 and 10-12 are presented for Appellate review.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

Claim 1 concerns a personal care composition. A first element of the composition is that of an unsaturated organic material with at least two olefinic double bonds in conjugated relationship susceptible to degradation into a color bearing substance, the unsaturated material being selected from  $C_{10}$ - $C_{50}$  terpenoids and  $C_{12}$ - $C_{48}$  unsaturated fatty compounds, the  $C_{12}$ - $C_{48}$  compounds being selected from the group consisting of fatty alcohols, fatty acids, fatty acid glycerides, fatty acid salts and combinations thereof. See original claims 1 and 7, page 2, paragraph (0004), and page 4, paragraph (00010). A second element of the composition is a substituted urea of general structure (I). See the specification at page 2, paragraph (0004), page 3, paragraph (0007) and original claim 1. A cosmetically acceptably carrier is the final element of the composition. See page 11, paragraph (00019).

Claim 2 specifies that the substituted urea is hydroxyethyl urea. See page 4, paragraph (0008), penultimate sentence.

Claim 4 specifies the unsaturated material as present in an amount from about 0.0001 to about 20% by weight. See page 11, paragraph (00016).

Claim 5 specifies that the substituted urea is present in an amount from about 0.01 to about 20% by weight. See page 4, paragraph (0009).

Claim 6 specifies that the substituted urea relative to the unsaturated material is present in a weight ratio from about 10,000:1 to about 1:100. See page 11, paragraph (00017).

Claim 10 specifies that the unsaturated material has an Iodine Value ranging from about 20 to about 300. See page 11, paragraph (00018).

Claim 11 specifies that the substituted urea relative to the unsaturated material is present in a weight ratio from about 10,000:1 to about 500:1. See page 11, paragraph (00017).

Claim 12 identifies the composition as being in a form selected from the group consisting of skin lotions, skin creams, shampoos, shower gels, toilet bars, antiperspirants, deodorants, dental products, shave creams, depilatories, lipsticks, foundations, mascara, sunless tanners and sunscreen lotions. See page 3, paragraph (0006).

#### **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Are claims 1-2, 4-6 and 10-11 obvious under 35 U.S.C. § 103(a) over Rodrigues et al. (U.S. Patent Application Publication 2002/0100122A1) in view of Nakatsu et al. (U.S. Patent 5,965,518)?

Are claims 1 and 12 obvious under 35 U.S.C. § 103(a) over Rodrigues et al. (U.S. Patent Application Publication 2004/0266921) in view of Nakatsu et al. (U.S. Patent 5,965,518)?

## **VII. APPELLANT'S ARGUMENTS**

**Are claims 1-2, 4-6 and 10-11 obvious under 35 U.S.C. § 103(a) over Rodrigues et al. (U.S. Patent Application Publication 2002/0100122A1) in view of Nakatsu et al. (U.S. Patent 5,965,518)?**

Personal care products often can be rather sensitive to degradation. Heat or extended storage can cause unsightly color changes. Key culprits are ingredients with one or more double bonds in their structure. Of particular susceptibility to photo and/or oxidative degradation are materials that have two olefinic double bonds in a conjugated relationship. This breeds color bodies.

Appellant has surprisingly found that certain types of substituted urea compounds, especially those with hydroxyalkyl groups inhibit the formation of unsightly color.

The Examiner has presented a rejection wherein the invention starts from the solution rather than the problem. Applicant's problem was the color bodies generated by unsaturated materials. The solution was found to be certain substituted ureas.

By contrast, the Examiner presents a scenario of a skilled chemist in possession of formulas with substituted ureas seeking to find further compatible formulation ingredients. This places the present invention's solution in the position of being a problem. Thus, a combination of Rodrigues et al. (which is applicant's

solution) in view of Nakatsu et al. (which is applicant's problem) is an inappropriate combination of positioning primary and secondary references.

Even if the relative primary and secondary reference arrangement were appropriate, the combination still would not render the present invention obvious. Rodrigues et al. is cited for describing dilute fabric softener formulations. These feature hydroxyl urea compounds. Perfume is included in a number of the Examples. No disclosure is presented regarding the constituents of the perfume.

Nakatsu et al. describes fragrance compositions with antimicrobial activity. These are reported in two paragraphs. They stretch from column 3 (line 25) to column 4 (line 5). The second of these paragraphs focuses on essential and non-essential oils. These oils are mixtures of many many ingredients. Among the approximately 30 oils are such materials as anise oil, bay oil, terpineless, clove bud, clove leaf, clove oil, clove stem, organum oil, Peru balsam, pimento oil, and thyme oil. All are described as phenolic containing substances. Also examples of non-aromatic terpenoids are mentioned. These include buchu oil, caraway oil, carrot seed, cedar leaf, citronella oil, citrus oil, copaiba oil, geranium oil, gergamot, lavender oil, mint oil, orange oil, parsley oil, patchouly oil, pine oil, rosemary oil, sage oil, tegette oil, and ylang ylang.

There has been no identification by the Examiner as to whether or how much of any conjugated olefinic double bond organic material is present in any of the listed substances.

The first paragraph of fragrance description at column 3 includes about ten highly generic classes of compounds. These are stated to be esters, aldehydes, alcohols, ketones, terpinenes, ethers, acetals, nitrites, essential oils, heterocyclic nitrogen-containing compounds or sulfur containing compounds. See column 3, lines 25-32. Thereafter, is a section giving Examples of phenolic fragrances. These are listed as including amyl salicylate, cavacrol, dihydroeugenol, eugenol, hexyl eugenol, hexyl salicylate, isoeugenol, methyl eugenol, methyl isoeugenol, methyl salicylate, tert butyl cresol, thymol, and vanillin. None of these appear to be unsaturated organic materials having at least two olefinic double bonds in conjugated relationship, particularly one susceptible to degradation into a color bearing substance.

Within the larger disclosure noted above, the Examiner has done her own selection focusing only on column 3, lines 37-45. Therein are listed Examples of non-aromatic terpenoid compounds. They are 24 in number. From this list, the only possibility of a conjugated double bond olefinic material is found in the listing "phellendrene" and "terpinene". There are three isomers of terpinene. These are alpha-, beta- and gamma- terpinene. Only the alpha-terpinene has conjugated double bonds, the others are non-conjugated di-olefinic structures. Consequently, the only unambiguously identified unsaturated organic material with at least two olefinic conjugated double bonds is phellendrene. No particular significance is given to phellendrene. The substance is buried in a very very large list of fragrance materials (not merely the 24 non-aromatic terpenoids but also a full two paragraph listing between columns 3-4).



Fragrance formulations are found in Tables 1-5 of Nakatsu et al. Phellendrene is a tiny component of the Table 3 fragrance identified as AMPAT-C. None of the other fragrance formulations appear to have any easily identifiable conjugated double bond constituent. Table 6 provides comparative antimicrobial activity data for each of the AMPAT formulas. AMPAT-C is a weak sister to the other AMPAT formulas. In particular, AMPAT-C is not particularly effective against *E. Coli*. Note column 6 (lines 18-19). A skilled chemist seeing the results of Table 6 would probably not select AMPAT-C given the somewhat better performance of the AMPAT fragrances A, B and E. Curiously the only AMPAT formula containing a conjugated double bond constituent (phellendrene) is not superior and arguably inferior to the other fragrance formulations.

A skilled chemist seeking to improve the Rodrigues et al. fabric softening formulations would have a tremendous number of fragrance possibilities to choose from. Even if it were desirable to select antimicrobial actives as reported by Nakatsu et al., it is statistically highly unlikely that a perfume defined by Nakatsu et al. would be selected containing an unsaturated conjugated double bond substance. Indeed, there are hints that conjugated unsaturated substances (e.g. phellendrene) might not be suitable. Applicant considers that the Examiner simply has not presented a *prima facie* case of obviousness.

**Are claims 1 and 12 obvious under 35 U.S.C. § 103(a) over Rodrigues et al. (U.S. Patent Application Publication 2004/0266921) in view of Nakatsu et al. (U.S. Patent 5,965,518)?**

Rodrigues et al. was cited for revealing hydroxyalkyl urea in an aqueous-based polymer composition to maintain hydration. The word "fragrances" is found in a list of adjunct materials. There is no characterization of the fragrance constituents.

Nakatsu et al. was again cited for supplying the fragrance that contained an unsaturated organic material having at least two olefinic conjugated double bonds.

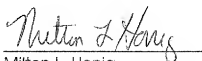
Applicant understands that there might be motivation to select a perfume that has antimicrobial activity for incorporation into Rodrigues et al. Where the Examiner's motivation argument has flaws is that Nakatsu et al. cannot attribute any antimicrobial action to an unsaturated organic material having at least two olefinic conjugated double bonds. According to the reference, a fragrance composition requires 3-20% phenolic compounds and 20-80% non-aromatic terpenoids to achieve antimicrobial activity. Further it is necessary for this fragrance composition to pass an Odor Intensity Index of less than 100 and an Odor Evaluation Acceptability Index of greater than 50. But none of this suggests that a constituent with a conjugated olefinic double bond provides such activity.

The only substance clearly identifiable as an unsaturated organic material with at least two olefinic conjugated double bonds is that of phellendrene. One of the five exemplified fragrance formulations incorporates phellendrene. It is found at 1.65% in Table 3 under the formulation AMPAT-C. The other AMPAT formulas -A, -B and -E are outlined in the respective Tables 1, 2 and 5. Other than the control, AMPAT-D, the weakest of the fragrance formulations is AMPAT-C. It is only modestly effective against a significant microbe which is *E. Coli*. Note Table 6 and column 6 (lines 18-19). If there were any motivation to begin with, the skilled chemist carefully reading Nakatsu et al. would tend to avoid formulas that had components similar to AMPAT-C. One of these desirably avoidable components would necessarily be phellendrene, an unsaturated organic material with two olefinic conjugated double bonds.

There are countless fragrance constituents available to the perfume chemist. Very few meet the conjugated double bond criteria. There would be no particular motivation to select these particular structures. Certainly the Nakatsu et al. reference does not provide a form to showcase such substances. If anything, doubt might arise for use of the only exemplified conjugated double bond constituent phellendrene.

Based on the foregoing considerations, appellant requests the Board of Appeals and Interferences to reverse the rejections and have the Examiner issue the claims.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Milton L. Honig", is written over a horizontal line.

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### VIII. CLAIMS APPENDIX

Claim 1. A personal care composition comprising:

- (i) an unsaturated organic material with at least two olefinic double bonds in conjugated relationship susceptible to degradation into a color bearing substance, the unsaturated material being selected from C<sub>10</sub>-C<sub>50</sub> terpenoids and C<sub>12</sub>-C<sub>48</sub> unsaturated fatty compounds, the C<sub>12</sub>-C<sub>48</sub> compounds being selected from the group consisting of fatty alcohols, fatty acids, fatty acid glycerides, fatty acid salts and combinations thereof;
- (ii) a substituted urea of general structure (I)



I

- wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, (R<sub>5</sub>)<sub>n</sub>OH, and mixtures thereof; R<sub>5</sub> is methylene, ethylene, propylene or combinations thereof, and n ranges from 1 to 6; and R<sub>4</sub> is (R<sub>5</sub>)<sub>n</sub>OH; and
- (iii) a cosmetically acceptable carrier.

Claim 2. The composition according to claim 1 wherein the substituted urea is hydroxyethyl urea.

Claim 4. The composition according to claim 1 wherein the unsaturated material is present in an amount from about 0.0001 to about 20% by weight.

Claim 5. The composition according to claim 1 wherein the substituted urea is present in an amount from about 0.01 to about 20% by weight.

Claim 6. The composition according to claim 1 wherein the substituted urea relative to the unsaturated material is present in a weight ratio from about 10,000:1 to about 1:100.

Claim 10. The composition according to claim 1 wherein the unsaturated material has an Iodine Value ranging from about 20 to about 300.

Claim 11. The composition according to claim 1 wherein the substituted urea relative to the unsaturated material is present in a weight ratio from about 10,000:1 to about 500:1.

Claim 12. The composition according to claim 1 which is in a form selected from the group consisting of skin lotions, skin creams, shampoos, shower gels, toilet bars, antiperspirants, deodorants, dental products, shave creams, depilatories, lipsticks, foundations, mascara, sunless tanners and sunscreen lotions.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDINGS APPENDIX

None.